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ABSTRACT

In this paper the writer attempts to derive and apply a theory of validity for inductive or probable argumentation. The following definition of rhetorical validity is proposed: an argument is valid when, in an adversarial situation, the degree of certainty claimed by (or for) a conclusion is less than or equal to that established by its related supporting proof. This definition is based on the following terms and relationships which are consistent with contemporary usage: claims are modified by implicit or explicit qualifiers, claims are drawn from a context in which both favorable and unfavorable evidence resides, and claims should not be considered as valid if they assert a greater probability than is identifiable via scrutiny of the argumentative context. The paper then seeks to establish both empirical and critical procedures for applying validity tests to the wide spectrum of nondeductive arguments. A list of references is included. (JM)

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Assessing Validity in Rhetorical Argument:

A Definition and Application

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Assessing Validity in Rhetorical Argument:
A Definition and Application

In his treatise On Posterior Analytics, Aristotle described syllogistic demonstration as the mode of argument able to establish scientific (valid) knowledge.[1] While Aristotelian, or classicial logic is not the only approach to the formal study of inference, it is true that logical systems share a concern for the form rather than the content of argument. Thus, Irving Copi observes that, "A deductive argument is valid when its premisses and conclusion are so related that it is absolutely impossible for the premisses to be true unless the conclusion is true also."[2] This preference for a definition of argumentative validity based on the relationship of premises to a conclusion (apart from the wider context from which the arguments are drawn) has caused logicians to reserve the application of the term "validity" to formal deductive argument.[3] Copi continues: "Neither the term 'valid' nor its opposite 'invalid' is properly applied to inductive arguments." In criticizing the logician's emphasis upon the validity

of formal deductive arguments, Stephen Toulmin has posed a classic question concerning the extent to which,". . . logic can hope to be a formal science, and yet retain the possibility of being applied in the critical assessment of actual arguments . . . ."[4]

Against this background, this writer attempts to derive and apply a theory of validity for inductive or probable argumentation. Rhetorical argument, in this view, cannot function apart from a wider context of assertion and counter-assertion. Examples of valid deductive argument which are artificially created or torn from the larger context are of only limited value to the scholar of controversy as it occurs in the "real world." In securing a measure of validity for argument in natural language,[5] this author will both (1) provide a definition of inductive or probable validity, comparing this to the traditional analysis of the rhetorical argument and (2) suggest how the definition may be applied to naturally-occurring contexts of dispute. The section on application will include both a discussion of empirical and critical procedures for the assessment of validity in natural contexts. The result of these labors will be a standard of validity for rhetorical argument--a standard which may be used for the critical assessment of the quality of public communication.

A Definition of Rhetorical Validity

A viable definition of rhetorical (i.e., inductive or probable) validity must, itself, be valid and reliable. (To

avoid confusion over the term, "validity," I shall use the expression, "legitimacy" as an expression of the validity of measures of argumentative validity.) That is, judgments of rhetorical validity which result from the definition must be acceptable to the community of scholars of rhetorical argument. The definition must, to the satisfaction of the experts, separate the valid from the invalid. A definition which fails to do this is, itself, lacking in legitimacy. Second, the definition should allow for reliable judgments. That is, successive applications of the definition (by different critics) should yield similar assessments of validity. A definition, the application of which yields inconsistent assessments of argumentative validity, is an unreliable definition. Let us, therefore, first consider the definition of rhetorical validity and, then, examine its legitimacy and reliability through actual application.

The definition of rhetorical validity herein proposed is as follows:

> An argument is valid when, in an adversarial situation, the degree of certainty claimed by (or for) a conclusion is less than or equal to that established by its related supporting proof.

Let us systematically consider the elements of this definition. Basic to the definition is the notion that an asserted conclusion (i.e., a claim or argument) carries with it an explicit or implied statement of the certainty attributed to the claim.

This assumption is equivalent to Toulmin's notion of a qualifier in the layout of argument. A qualifier, in the Toulmin sense, is the statement of the degree of certainty attributed to a claim.[6] Thus, were an advocate to make the argument, "tomorrow it will rain," the claim could be expected to have associated with it a statement of the probability of the conclusion (claim). This statement might be explicitely asserted by the advocate (e.g., "the chance of rain tomorrow is 30%"), or implicit from the context in which the claim was located (for instance, the statement of claim may be located in the context of the advocate's discussion of the reliability of his method of weather prediction). In either case, the statement of certainty attributed to the claim is a necessary aspect of evaluating the validity of claims in rhetorical argument, since the major characteristic of the inductive situation (as distinguished from the deductive) is the probable as compared to the absolute status of the conclusion.

A second aspect of the present definition of rhetorical validity is the degree of certainty established for a conclusion by its related supporting proof. In rhetorical argument, it is the supporting context of evidence and argument which attempts to justify the certainty attributed to the claim. In Toulmin's essay on "Probability," he elaborates on this assumption, writing that, "Just how far we are entitled to commit ourselves [level of certainty attributed to the claim] depends on the strength of the grounds, reasons or evidence at our disposal."[7] In this scenario, a distinction is made between the asserted level of

certainty attributed to the claim and the level of certainty established by the surrounding context of reasons and evidence. These separate statements of probability must be compared in the assessment of rhetorical validity. In terms of the above definition, an argument cannot be valid if the asserted level of certainty is greater than the established level. In such a case, the claim is overstated--it fails for want of sufficient support. However, in the words of the definition, if the "the degree of certainty claimed by (or for) a conclusion is less than or equal to that established by its related supporting proof," then the argument (statement of conclusion together with asserted certainty) has been successfully supported. It is a valid inductive conclusion.

The process by which the asserted and established levels of certainty are compared requires further elaboration, since this comparison is critical to the assessment of validity. This elaboration further suggests that we, at the same time, consider a final requirement of the definition of rhetorical validity: the need for an adversarial situation. An adversarial situation may be defined as a surrounding context in which both arguments for and against a particular claim may be found. This definiton may be likened to the Toulmin model which contains both (1) reasons (data, warrant, and backing) which support the certainty (qualifier) attributed to a claim, and (2) statements of exception (reservations) under which the claim does not apply--i.e., is not valid.[8] The identification of the established validity requires, then, that we be able to compare

supporting and opposing material (pro and con arguments) as follows:

$$\frac{\text{supporting material}}{\text{supporting material + opposing material}} = \text{established level of certainty}$$

A hypothetical example will clarify why such a ratio of comparison is fruitful and necessary. Assume that through a process of analysis (to be described in the following section on application of the definition), we have identified, in the surrounding context, the value of both arguments which support the claim and arguments which oppose the claim. Assume, further, that the respective values are 50 and 40. Intuitively, we realize that the surrounding context contains more arguments in favor of the conclusion (value of 50) than in opposition to it (value of 40), but, that the margin in favor of the supporting arguments (value of 10) is not enormous. Intuitively, then, we realize that the claim possesses some degree of positive support, but that this <u>established</u> level of positive validity is far from absolute certainty (which would be denoted as 1.0, or 100% certainty). The ratio described above allows us to identify a single coefficient of established certainty, using values supplied by supporting and opposing material found in the surrounding context. Consider the following application:

$$\text{established level of certainty} = \frac{\text{supporting material}}{\text{supporting material + opposing material}} =$$

$$\frac{50}{50 + 40} = \frac{50}{90} = 0.55$$

In this example operation, the established level of certainty has been found to be 0.55, meaning that the claim possess a 55% chance of being true, given the nature of the surrounding context.[9] In the Toulmin sense, the established qualifier to the claim is, "X is true with a 0.55 degree of certainty."

The above ratio, which identifies the established level of certainty, requires that we be able to identify measures of <u>both</u> the supporting and opposing evidence from the surrounding context. Such a statement fits the above definition of an adversarial situation--"a surrounding context in which both arguments for and against a particular conclusion (claim) may be found." The question emerges, then, can we assess the established level of certainty in the absence of an adversarial situation? My answer to this query is, simply, "no." Rhetorical validity as defined in this paper requires a context which contains <u>both</u> supporting and opposing material. In a context which contained only supporting material we could observe that the claim was "persuasive," or "convincing;" but, a probability definition of inductive validity, as described in this paper, would be impossible.

The reader may well observe, at this point, that the requirement of an adversarial situation limits the applicability of the definition of rhetorical validity herein proposed. The reader may also observe that the <u>degree</u> to which a situation is adversarial or non-adversarial will vary (i.e., that the variable "adversarial situation" is a continuous rather than

a dichotomous variable). A response to these difficulties may be found in the axiom that, in all cases of rhetorical argument, an artificial context may be supplied. We have, thusfar, used the term, "surrounding context," to denote evidence and reasons (arguments) which are explicitely made a part of the scene. For example, the transcript of an inter-collegiate debate would amount to a natural context from which claims and arguments could be drawn. However, a critic or other third party who reads the transcript may observe, "but the affirmative failed to mention X, Y, and Z as possible arguments in support of their case!" Such a statement is an instance of an artificial context--arguments (pro and/or con) artificially added to the natural context by a critic or other third party to the dispute. In this view, a critic may supply an artificial context to the natural one, thereby allowing for the application of the definition of rhetorical validity to situations which are, otherwise, non-adversarial. We will elaborate on this point in the following section on "application of the definition of rhetorical validity."

Drawing together the several strands of thought thusfar pursued, we may conclude that rhetorical validity obtains when, in an adversarial situation, the asserted level of certainty is less than or equal to the established level. The established level of certainty results from the application of the ratio: supporting material ÷ supporting material + opposing material. At this point one further ratio is necessary to complete the

definition of rhetorical validity. This ratio--the ratio of validity--is derived from the following operation:

$$\text{ratio of validity} = \frac{\text{established level of certainty}}{\text{asserted level of certainty}}$$

Using the earlier-derived level of established certainty (0.55), assume that the level of asserted certainty is 0.90. Applying these values to the ratio, we identify the following measure of rhetorical validity:

$$\text{ratio of validity} = \frac{\text{established level of certainty}}{\text{asserted level of certainty}} =$$

$$\frac{0.55}{0.90} = 0.61$$

In this case, the conclusion is 61% valid, given that the asserted level of certainty is 0.90 and the established level 0.55. In terms of the definition of rhetorical validity, any claim with a validity ratio less than 1.0 would be invalid, the extent of invalidity being indicated by the difference between the ratio of validity and 1.0.

In this discussion of the definition of rhetorical validity, the author has demonstrated that, given values of supporting and opposing material, we may derive a measure of established certainty, and, further, we may derive a measure of rhetorical validity by computing the ratio of established and asserted levels of certainty. In concluding this introduction to the terms of "rhetorical validity" it is appropriate to consider the differences and similarities which the definition bears to the traditional analysis of inductive argumentation. Non-deductive statements are customarily criticized on the basis

of whether or not they exhibit some form of argumentative fallacy. Thus, since the time of Aristotle's description of the nine sham enthymemes,[10] argumentation texts have classified a legion of fallacious inductive forms. That many of these weaknesses are yet known by their Latin titles (post hoc, ergo propter hoc; argumentum ad hominem, etc.) testifies to their longevity in the rhetorical lexicon. While the inductive test--match the assertion to the proof--has long been recognized, only since Toulmin has significant attention been paid to the relationship of assertion and proof in the context of an explicit qualifier. Influenced by Toulmin's Uses of Argument, Douglas Ehninger and Wayne Brockriede added to their treatment of evidence a further source of proof deficiency--the "overstated claim." The most common occurrance of such a fallacy, they wrote, was when advocates "asserted a degree of certainty not justified by the evidence, warrant and reservation."[11] Deviating somewhat from Ehninger and Brockriede, this present author would assert that the overstated claim is not merely an additional class of argumentative fallacy. Rather, he would contend that all fallacious claims may be characterized as having an asserted level of certainty which exceeds a corresponding "real world" or evidential level. Traditional criticism of argumentation has usually compared statement and support in a general sense--not in relation to a specific level of claimed probability. One of the innovations of the definition of rhetorical validity is the postualte that, for all claims, critics must compare assertion and proof, not in a general way, but in relation to a specific

qualifier. Thus, for example, the "overgeneralization" is a case in which a given amount of evidence establishes some degree of certainty for a conclusion, but not a degree sufficient to justify the almost universal application which is demanded by the rhetor. The ad hominem is a case in which a piece of unfavorable information pertaining to a source is represented to an excessive degree as discrediting an argument by that source. Both the overgeneralization and the argument-against-the-source have some probative force corresponding to an identifiable, real world, qualifier. The invalidity occurs when the asserted qualifier exceeds in certainty the low level of confidence which experience has conferred on these two argumentative forms.

In addition to making the qualifier co-equal with the claim and evidence in the critical assessment of argumentation, the definition of rhetorical validity also elevates the "reservation" or "counter-evidence" term to a position equal to that of the evidence. Ehninger and Brockriede classified the "ignored reservation" as a distinct source of fallacious reasoning, but did not view this deficiency as generic to the analysis of validity of all inductive forms:

> Thus far valid claims have been shown to depend on the relationships among the indispensable proof elements--evidence, warrant, and claim. Proofs have been termed deficient if the claim is unwarranted, or if either the evidence or warrant is inadequate.

> A fourth class of deficient proofs includes those that ignore reservations that ought to be appended to the claim. Such deficiencies occur when the debater fails to investigate the whole factual context of a controversy.[12]

This statement--which, parenthetically, illustrates the tendency of argumentation scholars to apply the rubric of "validity" to inductive argument--demonstrates the traditional practice of viewing an omission of counter-evidence as a separate form of fallacy. The definition of rhetorical validity considers scrutiny of counter-evidence as necessary for the application of validity to all claims. Since arguments appear in a necessarily abbreviated form, the definition provides that no claim can be scrutinized for validity in a context in which other representative relevant supporting and opposing material is absent. That is, arguments omit reservations (and, indeed, supporting ideas) of necessity since they are selected from a wider context. Failing a representative adversarial context, a critic may not realistically hope to assess validity, although he may testify as to the general "coherence" or persuasiveness" of the argument.

The definition of rhetorical validity herein proposed is, then, closely related to traditional criticism which evaluates the strength of an argument by examination of the evidence offered to substantiate the claim. The definition adds, to the statement-support criterion, the further requirement that the statement be analyzed in reference to its qualification and the support in reference to contradictory information. While neither the qualifier nor counter-evidence is a new term in

argument theory, the viewpoint that these terms are co-equal with evidence and claim in the criticism of argument represents not a departure but an extension of familiar rhetorical principles. Several questions remain, however, pertaining to the feasibility of applying this definition to "real world" contexts of argument: (1) how may we identify the surrounding context of pro and con arguments pertaining to a claim? and (2) how may we measure the value of these pro and con arguments? Answers to these questions will be supplied in the following sections on empirical and critical application of the definition of rhetorical validity.

Rhetorical Validity: An Empirical Application

In the previous discussion of rhetorical argument, validity was conceived of as a ratio between the asserted and established levels of certainty pertaining to a particular claim. Empirical application of this definition assumes that we are able to identify legitimate (i.e., scientifically valid) and reliable values to be used in the assessment of validity: (1) the value of supporting and opposing material in the surrounding context, and (2) an estimate of the level of certainty asserted by the author(s) of the claim. Let us consider the procedure, results and implications of the following empirical application conducted by the author of this essay.

Procedure

The text of the Final Debate of the 1968 National Debate Tournament was chosen by the experimentor as a natural context

of dispute.[13] It was believed that the debate text provided a suitable context because: (1) the text clearly fit the definition of an adversarial situation, (2) the debaters were experienced in the topic area and could be expected to provide a representative sample of the most persuasive arguments to support their respective sides, and (3) the debaters were experienced in the clear and succinct presentation of argumentative statement and support. The subject of the debate was "Resolved: that the Federal Government should Guarantee a Minimum Annual Cash Income to All Citizens."

Having chosen a natural context of dispute, the experimenter selected a claim from the text to serve as the focus for the empirical analysis of rhetorical validity. The claim chosen for scrutiny of its validity was: "Such a gurantee [of assistance to the poor] would first serve to encourage self-improvement." The claim was taken from the constructive speech of the First Affirmative speaker (p. 81 of the text).

Six judges were selected from a class in Debate and instructed to: "re-read the text of the debate and identify those arguments in the debate which are relevant to the above claim--that is, identify those statements which tend to support the claim or to oppose it." The sentence was chosen as the unit of analysis. Judges read all speeches of the debate twice in completing this exercise. Those sentences marked as being "relevant" by at least three of the six judges were selected for further analysis as to their probative value. 209 such

sentences were obtained via this criterion: 94 from affirmative speeches and 115 from speeches by the negative.

Having identified the subset of relevant material from the natural context, the judges were next instructed to estimate the degree of certainty attributed to the claim by the affirmative speakers. The judges were told to re-read those portions of the affirmative speeches marked as relevant to the claim and identify the percentage of certainty (5% to 100%, in intervals of 5) asserted by the affirmative speakers. The estimates varied between 80% and 100% with a mean of 87%. The mean estimate appeared reasonable in view of the general tendency of championship college debates to be emphatic in their argumentation.

The judges (now numbering five instead of six) were next instructed to estimate the extent to which each of the 209 relevant sentences supported or opposed the claim. The judges had previously been trained in identifying both the relevancy and probative force of arguments relative to a claim. In addition, immediately before the rating exercise, additional guidelines were given to them. The judges were told that, generally, sentences from affirmative speeches would either be irrelevant to proving the claim or positively support it. That is, it would be unlikely that an affirmative speech would contain material which would act to disprove the claim. Sentences from negative speeches were characterized as being most likely to disprove the claim or be irrelevant to it. Further, judges were told that the sentences would likely be of one of

four types: (1) those that repeated an opponent's argument--"headlining" it: these were described as having little or no probative value; (2) those that gave a "line of reasoning"--i.e., that contained an explanation consisting of evidence and or reasoning which supported or opposed the claim--these were described as having the greatest potential probative force; (3) those that contained miscellaneous description or narration--described as having some provative value; and (4) those which asserted conclusions without clear evidence/reasoning--having less value than "2" or "3" but more than "1". Some practice was then conducted on rating irrelevant material. These instructions were, then, copied onto a black board for reference by the judges during the rating exercise.

All judges used a rating scale developed by the experimenter which, on the left-hand column, contained a "sentence number" (1-209) and, on the right side, a scale (-3, -2, -1, 0, 1, 2, 3) the extremities of which were marked, respectively, "Disproves Claim" and "Proves Claim." Each sentence was read to the judges who independently circled the appropriate scale number corresponding to their estimate of the extent to which each sentence supported the claim or opposed it, considering each sentence (in so far as possible) by itself. When requested, the sentences were re-read to the judges.

Results

The judges' ratings were summarized and two analyses performed on them: (1) a mean score of the probative value of each sentence was computed and summated to elicit measures

of the total probative force of supporting and opposing material. A score of 89.0 resulted for the supporting material; a score of 97.4 for the opposing material; and (2) the raw ratings of sentences by the five judges were used in computing a measure of the inter-judge reliability of the sentence-evaluation. A reliability score was computed using analysis of variance data summarized below in Table 1:

Table 1 Analysis of Variance

Source of Variation	SS	df	MS
Between Sentences	1409.39	208	6.78
Within Sentences	328.00	836	0.39
Between Judges	4.43	4	1.11
Residuals	323.57	832	0.39

The reliability estimate for five judges, using a formula from Winer[14] was 0.94. The high reliability score was taken as an indication that the judges were able to agree on the probative effects of the 209 sentences on the claim selected for analysis. Such is evidence that systematic errors did not take place in the use of the rating scale and that the sentences were perceived as being unambiguous.

Having identified figures for the asserted level of certainty and the value of the supporting/opposing material, it was possible to empirically determine the validity of the claim using the two ratios discussed in the definition of rhetorical validity:

a. established level of certainty =

$$\frac{\text{supporting material}}{\text{supporting material + opposing material}} =$$

$$\frac{89}{89+97.4} = \frac{89}{186.4} = 0.47$$

b. ratio of validity = $\frac{\text{established level of certainty}}{\text{asserted level of certainty}}$ =

$$\frac{0.47}{0.87} = 0.54$$

In short, empirical application of the definition of rhetorical validity indicated that the claim chosen for analysis in the 1968 Final NDT debate failed the test of validity because the level of certainty claimed for the conclusion was less than the level established by judges' rating of the relevant supporting and opposing material.

Discussion

It is appropriate to consider the implications (both advantages and disadvantages) of the empirical application of rhetorical validity since this methodology appears to depart so substantially from the traditional criticism of argument. At the outset this author would observe that the concept of "rhetorical validity" is not foreign to argumentation theory which assumes that one may critically scrutinize arguments not only on the bases of their formal validity or audience effects (persuasion), but also on a sort of middle ground dealing with the "reasonableness" of a statement given its support. Further, since the definition of rhetorical validity combines traditional

argumentation terms in familiar formats--evidence versus counter-evidence, statement (plus qualifier) versus evidence (with derived qualifier)--this author would claim for the definition a degree of content legitimacy. However, the empirical application of these terms raises two questions: (1) are precise, mathematical relationships (ratios) among argumentative terms advantageous?. (2) are such legitimate and reliable?

The question of the advantages to be gained by quantifying validity is a philosophic one. The three critics who reviewed the original draft of this paper for the Forensics Division Program tended to suggest that it may not be desirable to quantify argumentation validity because such an endeavor they believed, was both theoretically and practically infeasible. Whether or not quantification is antithetical to argumentation theory is a question not likely to be resolved in the "discussion" section of a single essay. If, however, quantification implies a better understanding of concepts and of the relationships among concepts, then it may prove useful for future research. Further, the quantification of validiy might serve, as a basis for controlling or standardizing the message variable in argumentation and persuasion research. At what point do audiences perceive a preponderance of proof? Are more valid arguments also more persuasive? Quantification of rhetorical validity might, further, assist rhetorical critics in approaching objective analysis of arguments associated with social issues.

Although less philosophical, the problem of the legitimacy and reliability of empirical validity measures is more pragmatic and pressing. What are the strengths and weaknesses of the definition from a measurement point of view? It is clear, at the outset, that the empirical measurement of rhetorical validity carries with it inherent limitations. The methodology requires microscopic scrutiny of all material relevant to a claim. For this reason, analysis of a large context could consume great amounts of time and resources. Further, in many situations of dispute, the experimenter would find it necessary to supply an artifical context to supplement a one-sided natural context or one which was not representative of the best arguments available in the topic area. Procedures would need to be developed to deal with such measurement problems, though the difficulties do not appear insurmountable.

In addition to general issues of measurement, the empirical application carries with it some specific problems of data legitimacy and reliability. First, it is obvious that the judges' ratings of sentences amount to ordinal data--sentences are described as being more or less valuable in relation to a claim. Yet, the empirical ratios require ratio data--data in which the intervals separating the probative values of the arguments are known and related to a knowable zero (point at which "no value" is identifiable). However, while the ratio transformations of the empirical data violate certain measurement assumptions, Fred Kerlinger suggests that such violations need not constitute prima facie evidence as to

the illegitimacy of the results. Kerlinger argues that, since the intervals marked on a rating scale may represent real intervals to the judges, such ordinal data may actually approach the interval level.[15] Further, he asserts that, as long as we are aware of data difficulties such as the above, it may be acceptable to deviate from certain assumptions and treat our judges' ratings as being of a higher order than the ordinal.[16]

The basis of the ordinal v. ratio data issue is, of course, the fact that the data derive from rating scales rather than interval or ratio measuring instruments. Rating scales allow for judge biases to be reflected in the results, arising from the tendency of judges to preferentially rate stimuli and/or to systematically give medium or extreme ratings. Although pressing, the author would argue that data measurement problems may be mitigated by the following observations. First, the high reliability estimate (.94) suggests that the judges were able to use the rating scale to obtain consistent scores for the sentences. Evidence of the reliability of measurements is a necessary--though in itself insufficient--indicator of good research results. Second, the procedures used in gaining the sentence ratings--e.g., the instructions to and training of the judges appears to have had the effect of eliminating systematic extreme or medium rating of sentences. Finally, the sentence rating scale is based on certain theoretical relationships and definitions which follow from general argumentation theory. To wit: a claim must be measured in terms of relevant

evidence; evidence may act to prove, disprove or have no effect on the claim. The correspondence of the empirical measurement process to argumentation theory would suggest that the sentence rating scores have construct legitimacy.

Apart from technicalities pertaining to rating scale data, Kerlinger identifies a basic question relevant to the use of such devices: "Is there a better way to measure my variables?"[17] Since it is difficult to conceive of another means for the systematic recording of judgments about a large number of varying proof statements, it may well be that the difficulties with rating scale data are integral to the empirical determination of rhetorical validity.

Thus, the pivotal question pertaining to the statistical measurement of validity may be stated in these terms: are the advantages to be gained by objective, quantified measures of rhetorical validity commensurate with the effort and statistical difficulties associated with such empirical results? This author, hopefully, apart from any natural ego-involvement with one's own research, would supply a tentative "yes" to the above interrogative. Systematic procedures may enable us to better understand key terms in argumentation and it appears unreasonable to close the door on an area of argumentation research merely because of the currently-apparent difficulties associated with it.

Rhetorical Validity: A Critical Application

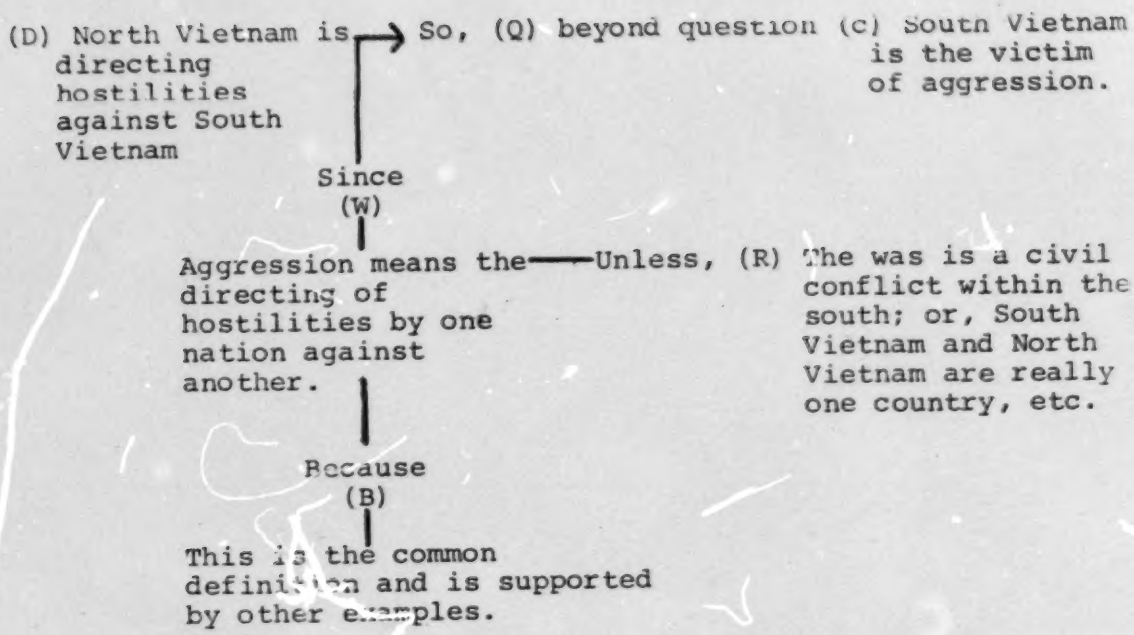
One approach to the difficulty of statistically measuring validity is the use of the rhetorical validity definition in a

more traditional format--rhetorical criticism. As observed earlier, the definition departs from the traditional analysis of arguments in that it treats both the qualifier and counter-evidence as equal to the claim and supporting proof in the determination of validity. For this reason, the definition amounts to a departure--though not a radical one--from the previous statement versus support criterion. In a critical methodology the formal ratios (established level of certainty and validity) would be used more as Burkean ratios rather than mathematical ones.[18]

The assessment of validity via rhetorical criticism may be better visualized through use of an example. In an earlier paper which assessed the validity of the Johnson Administration case for involvement in Vietnam,[19] the author of this paper applied a rhetorical standard of validity to the "aggression thesis," or, the assertion by the administration that the war in Vietnam was simply a case of aggression from North Vietnam against independent South Vietnam. Claims such as the following were identified in the literature by the critic:

> Beyond question this aggression was initiated and is directed by Hanoi.[20]
>
> . . . the hard facts and irrefutable evidence . . . lead to one inescapable conclusion: The Republic of Viet-Nam is the object of aggression unleashed by its neighbor to the north.[21]
>
> The record is conclusive. It establishes beyond question that North Viet-Nam is carrying out a carefully conceived plan of aggression against the South.[22]

These claims of the "aggression thesis" were synthesized via a Toulmin model:


(D) North Vietnam is directing hostilities against South Vietnam
So, (Q) beyond question (c) South Vietnam is the victim of aggression.
Since (W)
Aggression means the directing of hostilities by one nation against another.
Unless, (R) The was is a civil conflict within the south; or, South Vietnam and North Vietnam are really one country, etc.
Because (B)
This is the common definition and is supported by other examples.

Finally, a judgment was made that the aggression thesis was not 100% valid because the asserted level of certainty ("beyond question," "inescapable conclusion," etc.) was greater than the critic's judgment of the established level. Specifically, this critic pointed to the several reservations to the claim which were largely ignored by the administration. Comparison of the supporting material (data, warrant and backing) to the opposing material (reservations) yielded a critical judgment that the established level of certainty was much less than "beyond question."

Rhetorical criticism, by its nature, supplies judgments which may be controverted by other critics. Thus, the legitimacy of a critical assessment of rhetorical validity would depend on the acceptance of the critic's conclusions by other

critics. Critical reliability would be a function of the scholarly community's acceptance of the many judgments which underlay the critic's assessment of rhetorical validity.

In Retrospect

It is probably not without good reason that logicians have been reluctant to apply the rubric of "validity" to inductive or probable argumentation. The present definition of rhetorical validity has marked an attempt to explore new territory in establishing a set of "middle ground" criteria (i.e., falling between the procedures of formal logic and of attitude change measurement) for the analysis of rhetorical arguments. However, although marking a departure from traditional practice, the definition is based on the following terms and relationships which are consistent with contemporary usage: (1) claims are modified by implicit or explicit qualifiers, (2) claims are drawn from a context in which both favorable and unfavorable evidence resides, and (3) claims should not be considered as valid if they assert a greater probability than is identifiable via scrutiny of the argumentative context. This paper seeks to establish both empirical and critical procedures for applying validity tests to the wide spectrum of non-deductive arguments.

[1] Aristotle, Posterior Analytics, I. 2. A syllogism may be defined as, ". . . a form of deductive argument in which, granting the truth of two propositions (called the premises), the truth of a third proposition (the conclusion) necessarily follows." See Joseph G. Brennan, A Handbook of Logic (2nd ed.; New York: Harper and Row, 1961), p. 49.

[2] Irving M. Copi, Symbolic Logic (3rd ed.; London: The MacMillan Co., 1967), p. 4.

[3] The distinction between deductive argument and the corollary inductive form is usually stated as follows: whereas a valid deductive argument yields indisputable conclusions, a "valid" inductive argument, "provides good but not conclusive grounds for the acceptance of its conclusion." See Howard Kahane, Logic and Contemporary Rhetoric (Belmont, Cal.: Wadsworth Publishing, 1971), p. 218.

[4] Stephen Toulmin, The Uses of Argument (Cambridge: University Press, 1969), p. 3.

[5] The term "natural language" may be understood as the normal mode of human symbolic communication as distinct from a machine programming language (used in computers) or a logical form (such as symbolic logic).

[6] Toulmin, p. 101.

[7] Ibid., p. 90.

[8] Ibid., pp. 95-113.

[9] The reader will observe that the results of operations under this ratio will be some value less than 1.0. Further, this ratio definition of the establised level of certainty is analogous to the classic, a priori frequency definition of probability, p = f ÷ f + u, where p = probability, f = favorable cases, and u = unfavorable cases. See Fred N. Kerlinger, Foundations of Behavioral Research (New York: Holt, Rinehart and Winston, 1964), p. 118. Rudolf Carnap has observed that the term "probability" has really two usages in scholarly literature: (1) statistical probability "which means the relative frequency of a given kind of events or phonemena within a class of phenomena, usually called the 'population,'" and (2) inductive probability which is "a measurement, based on the available evidence, or the chances that something is true--as when a jury decides that a defendant is 'probably' guilty, or a weather forecaster predicts that it will probably rain tomorrow." See Rudolf Carnap, "What Is Probability?" Scientific American, 189 (1953), 128. In applying the duality of meanings to this present essay, it may be seen that, while the asserted level of certainty (the qualifier) is an example of inductive probability, the procedure for identifying the established level of certainty is an operation essentially involving statistical probability through the comparision of frequencies of supporting and opposing material. This paper, thus, amounts to an effort to unite inductive probability

judgments pertaining to statements with statistical ratings of the evidence from an argumentative context. That is, the question of validity becomes: is the inductive probability attached to a claim greater than the statistical probability (rating of the evidence) identified by objective analysis of the population of discourse from which the claim is drawn?

[10] Aristotle, Rhetoric II. 24.

[11] Douglas Ehninger and Wayne Brockriede, Decision by Debate (New York: Dodd, Mead and Co., 1963), p. 185. Emphasis was supplied in the original quotation.

[12] Ibid., p. 183.

[13] The text of the debate was taken from Robert C. Dick, Argumentation and Rational Debating (Dubuque: William C. Brown, 1972), pp. 79-105.

[14] See B. J. Winer, Statistical Procedures in Experimental Design (2nd ed.; New York: McGraw Hill, 1971), pp. 287-89.

[15] Kerlinger, p. 515.

[16] Ibid., p. 427

[17] Ibid., p. 516

[18] Kenneth Burke suggests that critics examine the relationships among five terms--scene, act, agent, agency, purpose--in reaching conclusions about motivation. Such relationships are described as "ratios"--e.g., a scene-act ratio would suggest

that a critic look for those elements of the scene which seemed to serve as the motive basis for a particular act. Such "pentadic" ratios are non-mathematical and, indeed, Burke argues that the identification of motive is not subject to an empirical analysis. See Kenneth Burke, A Grammar of Motives (Berkely: University of California Press, 1969), pp. 11-20 and xxiii.

[19] See J. Michael Sproule, "Validity and Credibility Gaps in the Johnson Administration Case for Commitment to Vietnam, 1964-1967," Paper presented at the Speech Communication Association Convention, December, 1974.

[20] Dean Rusk, "Laos and Viet-Nam--A Prescription for Peace," Department of State Bulletin, 50 (1964), 890.

[21] Francis T. P. Plimpton, "U.S. Calls for Deeds, Not Words, in U. N. Committee on Defining Aggression," Department of State Bulletin, 52 (1965), 776.

[22] U.S. Department of State, Aggression from the North: The Record of North Viet-Nam's Campaign to Conquer South Viet-Nam, Far Eastern Series 130, Pubn. 7839 (February, 1965), p. 29. We should note that the administraton explicitly refuted possible reservations to the claim of the aggression thesis.